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ON A NEW SPECIES OF GENUS *ASPIDOMYCTER* MARSHALL
(COLEOPTERA: CURCULIONIDAE: EREMNINAE) FROM INDIA¹

H. R. PAJNI AND C. S. SIDHU²

(With six text-figures)

A new species, *A. laeicollis* has been described under genus *Aspidomycter* Marshall. A key to the three so far known Indian species in this genus has been included and the characters of the genus have been elaborated. The structure of the male and female genitalia of *A. lunatus* Marshall has also been included.

INTRODUCTION

We have studied more than one hundred species of subfamily Eremninae during the course of a five year U.S. PL-480 project on Indian Curculionidae. As many as 49 new species and 9 new genera have been proposed under this subfamily. The present communication deals with a new species of genus *Aspidomycter* Marshall.

The genus *Aspidomycter* was raised by Marshall (1943) on a type species, *A. lunatus*. He also described a new sub-species namely *A. lunatus lefroyi* to which he later on (Marshall 1944) accorded the status of a valid species. The present new species thus marks the record of a third species under the same genus. Keeping in view the current knowledge on the genus

Aspidomycter, the characterization of this genus has been revised and a key to all the three Indian species has been given. The structure of the male and female genitalia of *A. lunatus* Marshall, also studied by us, has been included.

RESULTS AND DISCUSSION

Genus *Aspidomycter* Marshall

Marshall, *Ann. Mag. Nat. Hist.* (11) 10, p. 108 (1943); (11) 11, pp. 77, 81 (1944).

Head with dorsal area of rostrum broadly ascending its anterior part, and terminated posteriorly by a deeply impressed transverse line; eyes circular, somewhat convex. Rostrum very broad, dorsal area elevated and without any median sulcus or carina; epistome elongate, its margins carinate and forming an acute angle behind; scrobes short, curving inwards, suddenly effaced behind; mentum with four setae. Antennae with scape curved, gradually clavate;

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² Department of Zoology, Punjab University, Chandigarh-160 014.

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funicle with joint 2 longer than 1. Prothorax deeply bisinuate at base, its ocular lobes feeble or moderate, with obliquely prominent shoulders. Legs with corbels of hind tibiae fully enclosed, each having two rows of setae on external edge. Male genitalia with aedeagus sinuate at apex, there produced into a process in middle in which lies exophallic valve, orificial plates prominent, aedeagal apodemes more than twice as long as aedeagus. Female genitalia with bursa copulatrix sclerotized towards apex.

Type species: *Aspidomycter lunatus* Marshall

Aspidomycter laescollis sp. nov.

(Figs. 1, 3, 5)

Head with frons ferruginous, covered with

shining blue-green and brownish scales and some greenish sub-erect setae, only slightly wider than base of rostrum and separated from it by an incision; eyes black, somewhat convex, moderately large and circular. Rostrum ferruginous, almost as long as broad, running parallel from base to scrobes and only slightly dilated at apex, posteriorly ascending frons to form a raised plate, broadly truncate at base, almost flat and shallowly depressed behind the epistome and there provided with a fine central carina; surface of rostrum covered with shining blue-green and brownish scales and short spatulate pale setae, area close to epistome bare; epistome long, with its delimiting carinae high and forming an acute angle behind; scrobes short, broad, open behind, almost



1. Photograph of Adult *Aspidomycter laescollis* sp. nov.
2. Photograph of Adult *A. lunatus* Marshall.

visible from above; mentum with 4 setae. Antennae ferrugineous, long; scape stout, curved, gradually clavate, reaching three-fourth of prothorax, its surface densely covered with

brownish-green scales and sub-recumbent pale setae; funicle with second joint 1.3 times as long as first, third and fourth subequal but shorter than first, fourth to seventh subequal

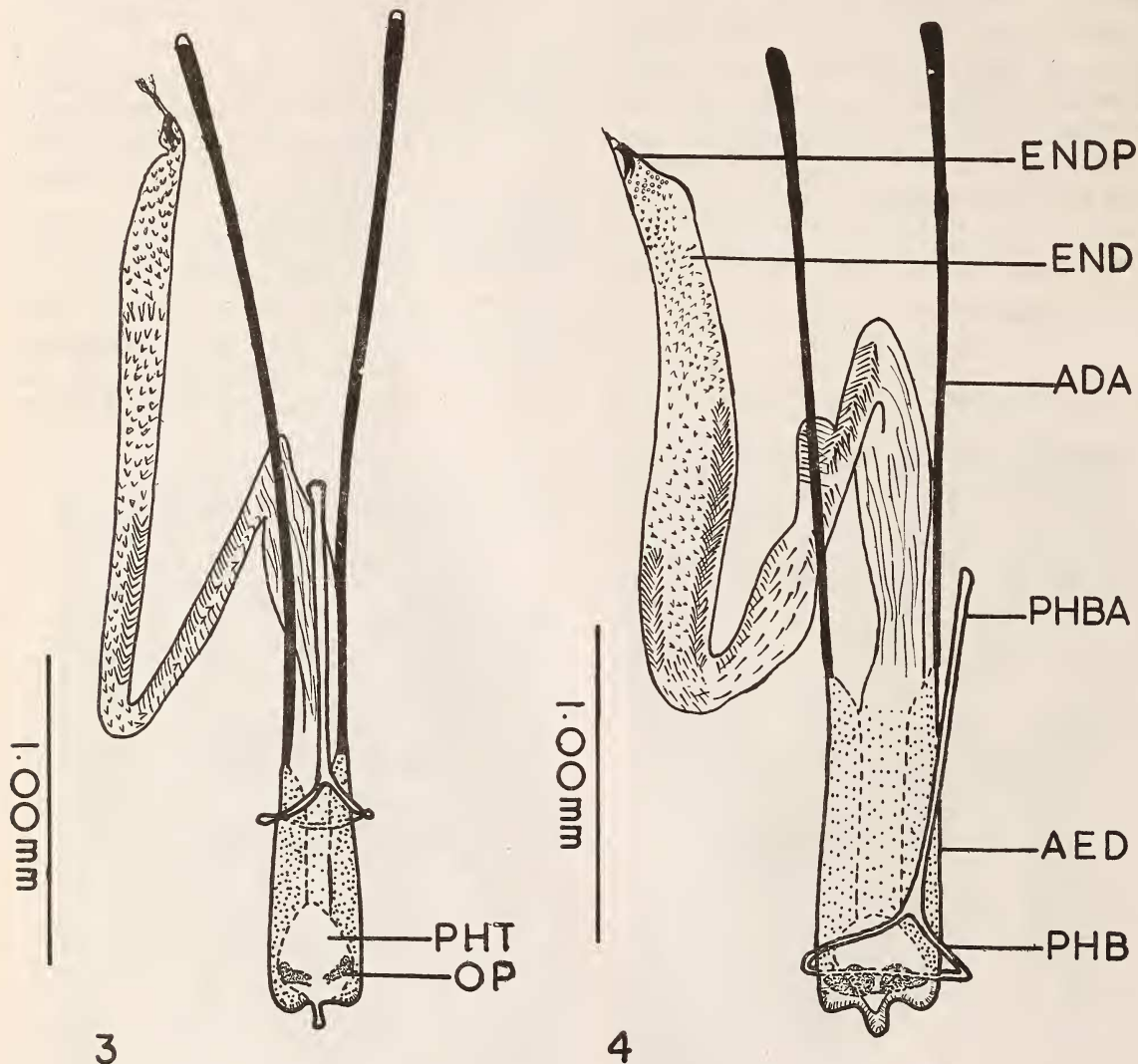


Fig. 3. Male genitalia of *A. laeicollis* sp. nov.

Fig. 4. Male genitalia of *A. lunatus* Marshall.

Abbreviations

ADA, Aedeagal Apodeme; AED, Aedeagus; END, Endophallus; ENDP, Endophallic plate; OP, Orificial plate; PHB, Phallobase; PHBA, Phallobasic apodeme; PHT, Phallotreme.

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and shortest, all joints covered with brownish-green scales and sub-recumbent pale setae; club dark brown, fusiform, finely and uniformly pubescent.

Prothorax ferrugineous, as long as broad, its anterior margin arcuate dorsally, with feeble ocular lobes and fine vibrissae laterally; dorsal surface of pronotum marked with small dense punctures; each puncture having a pale, sub-recumbent and spathulate seta; surface also furnished with blue-green scales, with a central and two dorso-lateral indistinct longitudinal stripes of brown scales, also with two deep and broad depressions near basal angles on brown stripes; lateral sides almost straight, about as broad at apex as at deeply bisinuate base, narrowly constricted near base. Scutellum small, rectangular, with anterior margin rounded, completely covered with blue-green scales. Elytra ferrugineous, oblong, their dorsal outline convex, running parallel from base to behind middle in male and widening in female, shoulders prominent and roundly rectangular; striae narrow, formed by small deep punctures, each puncture containing a minute recumbent seta; intervals broad, flat, covered with shining blue-green scales, with some scattered spots of dark-brown scales, each interval with numerous short and pale setae with long erect ones on and near top of declivity.

Legs ferrugineous, covered densely with blue-green and brownish scales, and small recumbent setae; forecoxae contiguous, placed a little towards anterior margin of prosternum; femora clavate, each with a sharp tooth; tibiae slender, each with a fringe of brownish bristles and a mucro at apex; anterior and middle tibiae with a row of spines on inner apical halves, corbels of hind tibiae enclosed, each with an outer row of short and an inner row of long bristles. Tarsi densely setose; hind tarsus with first joint nearly twice as long as second, third bilobed

joint spongy beneath; claws free. Thoracic sterna ferrugineous, covered with blue-green and pale scales, punctate and each puncture with a pale seta. Abdominal sterna ferrugineous, covered with blue-green scales laterally and with narrow pale scales in the middle, punctate and each puncture with a pale seta, setae becoming long, dense and broad towards apex.

Male genitalia with aedeagus straight, bilobed at apex and produced in middle in a long and narrow process, apex and sides strongly sclerotized; phallosome subapical, with an orificial plate on each side; aedeagal apodemes very long and slender, nearly thrice as long as aedeagus; phallosome ring-shaped, its ventral apodeme longer than aedeagus and thicker than aedeagal apodemes; endophallus surpassing aedeagal apodemes anteriorly, with much dense rows of spine-like setae laterally and strongly denticulate centrally, papillate towards apex, with a small curved plate at apex. Female genitalia with long and weakly sclerotized ovipositor, with coxites comparatively more sclerotized and sparsely setose; bursa copulatrix well-developed, sclerotized towards apex; spiculum ventrale long and much slender, spathulate at apex. Spermatheca with cornu pointed, collum somewhat bent towards ramus.

Measurements

Length:

Male body: 6.1 to 6.6 mm;

rostrum: 0.9 to 1.0 mm.

Female Body: 7.3 to 7.7 mm;

rostrum: 1.0 to 1.1 mm.

Breadth:

Male body: 2.0 to 2.2 mm;

rostrum: 0.9 to 1.0 mm.

Female body: 3.0 to 3.2 mm;

rostrum: 1.0 to 1.1 mm.

Holotype, Male, INDIA: Assam, Sylhet, from *Euphorbia indica*, C. S. Sidhu. Material in Entomology Section, Department of Zoology,

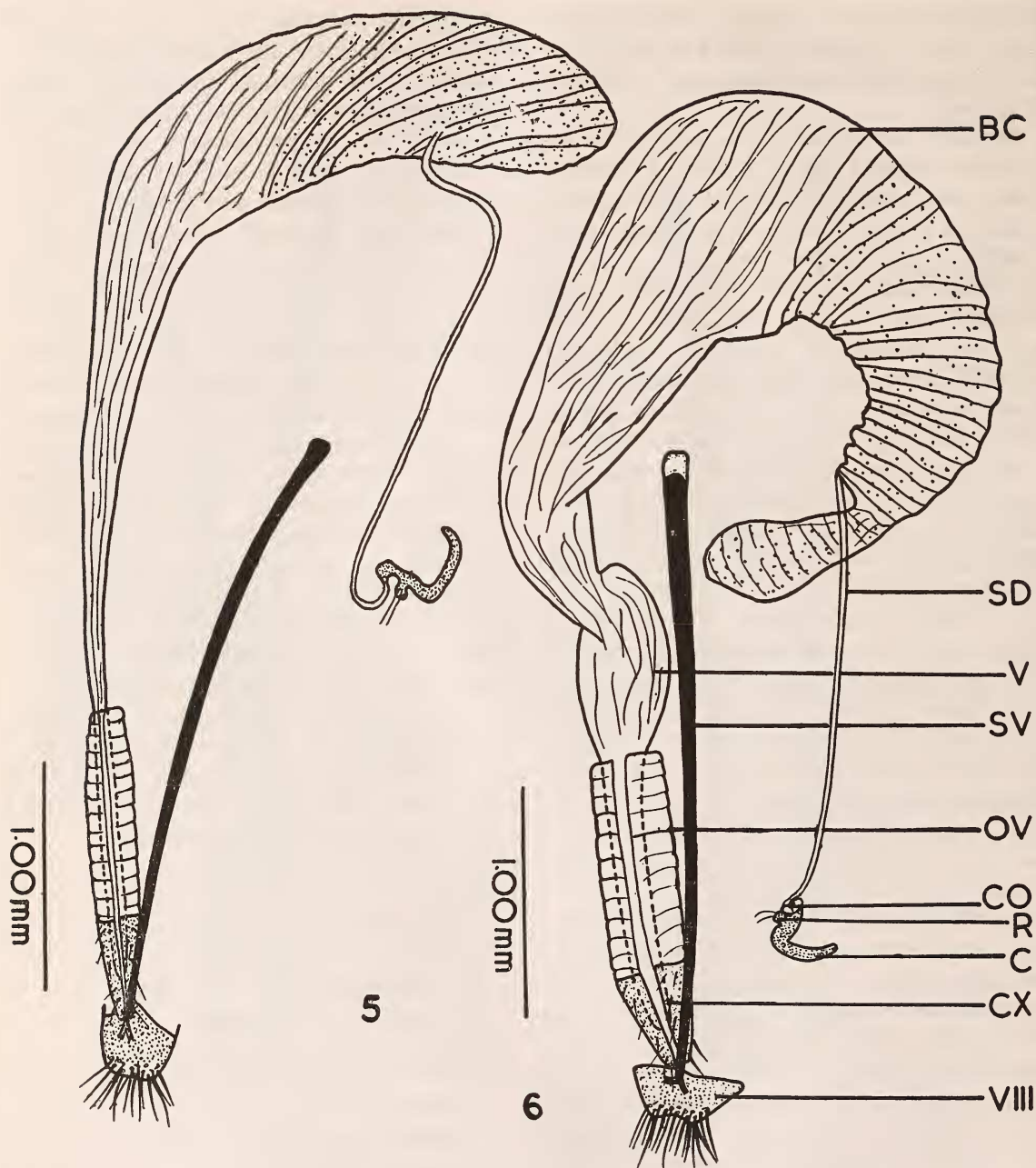


Fig. 5. Female genitalia of *A. laescollis* sp. nov.

Fig. 6. Female genitalia of *A. lunatus* Marshall.

Abbreviations

BC, Bursa copulatrix; C, Cornu; CO, Collum; CX, Coxite; OV, Ovipositor; R, Ramus; SD, Spermathecal duct; SV, Spiculum ventrale; V, Vagina; VIII, 8th sternum.

Punjab University, Chandigarh (11.x.1977).

Paratypes, 4 males and 4 females (same data as for holotype) (11.x.1977).

Remarks:

The present species can be easily made out from the only two other species known from India under this genus. Both the described species namely, *lunatus* Mshll. and *lefroyi* Mshll. carry distinct longitudinal bands of green and fuscous scales on the pronotum and elytra. This species is completely devoid of such distinct bands on the body.

A. lunatus Marshall

(Figs. 2, 4, 6)

Marshall, *Ann. Mag. Nat. Hist.* (11) 10, p. 109 (1943).

The following information on the male and female external genitalia is being added.

Male genitalia with aedeagus straight, bilobed at apex, produced into a process in middle, its apical half strongly sclerotized; phallosome subapical, with an orificial plate on each side; aedeagal apodemes more than twice the length of aedeagus; phallobase ring-shaped; phallobasic apodeme about as long as aedeagus, thicker than aedeagal apodemes; endophallus surpassing aedeagal apodemes anteriorly, with much dense rows of spine-like setae in basal half and strongly denticulate thereafter, papillate towards apex, having a small curved plate at apex. Female genitalia with ovipositor long

and weakly sclerotized; coxites comparatively more sclerotized and sparsely setose; bursa copulatrix well-developed, with apical half sclerotized, provided with a membranous lobe at apex; spiculum ventrale long and slender. Spermatheca with cornu broadly pointed and curved, collum displaced and lying over ramus.

KEY TO THE INDIAN SPECIES OF GENUS *Aspidomycter*
MARSHALL

1. Prothorax and elytra not marked with longitudinal bands of green and fuscous scales.....
.....*laesicollis* sp. nov.
Prothorax and elytra marked with distinct longitudinal bands of green and fuscous scales.....2
2. Each elytron with a green sublunate band at the top of the declivity.....*lunatus* Mshll.
Each elytron with two transverse green bands—one about middle on intervals 4-6, the second posterior band not lunate and ceasing internally on interval 3*lefroyi* Mshll.

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